ABSTRACT OF THE DISCLOSURE

The objects of the present invention is to improve the impact resistance of the semiconductor device against the impact from the top surface direction, to improve the corrosion resistance of the surface of the top layer interconnect, to inhibit the crack occurred in the upper layer of the interconnect layer when the surface of the electrode pad is poked with the probe during the non-defective/defective screening, and to prevent the corrosion of the interconnect layer when the surface of electrode pad is poked with the probe during the non-defective/defective screening. A Ti film 116, a TiN film 115 and a pad metal film 117 are formed in this sequence on the upper surface of a Cu interconnect 112. The thermal annealing process is conducted within an inert gas atmosphere to form a Ti-Cu layer 113, and thereafter a polyimide film 118 is formed, and then a cover through hole is provided thereon to expose the surface of the pad metal film 117, and finally a solder ball 120 is joined thereto.